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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/578,707

10/11/2006

Yoshiyuki Sasaki

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EXAMINER

SONG, JASMINE

ART UNIT

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2188

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/578,707	Applicant(s) SASAKI, YOSHIYUKI	
	Examiner JASMINE SONG	Art Unit 2188	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 14-24, 28-38 and 42 is/are rejected.
- 7) ☒ Claim(s) 11-13, 25-27, 39-41 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/10/06 and 7/5/06</u> . | 6) <input type="checkbox"/> Other: ____. |

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Detailed Action

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Drawings

The drawings filed on 05/10/2006 have been approved by the Examiner.

Oath/Declaration

The applicant's oath/declaration has been reviewed by the examiner and is found to conform to the requirements prescribed in 37 C.F.R. 1.63.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 05/10/2006 and 07/05/2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 102

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 15-18, 29-32, 9-10, 23-24, 37-38, 14, 28, 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Aoki., US 6,151,660.

Regarding claims 1, 15 and 29, Aoki teaches an information recording apparatus comprising:

temporary storage means temporarily storing data in a data recordable information recording medium on the occasion of recording and/or reproduction (Fig.1, cache memory 4 and col.3, lines 18-20); and control means (col.6, lines 39-41) dividing a storage area of said temporary storage means to a plurality of areas (Fig.2 and col.3, lines 30-33) according to a mode of recording the data in said information recording medium (col.2, lines 19-25 and lines 37-45).

Regarding claims 2, 16 and 30, Aoki teaches said control means comprises means for storing data in a respective predetermined buffering manner in each area (col.3, lines 30-33 and col.1, lines 52-54 and col.4, lines 51-52).

Regarding claims 3, 17 and 31, Aoki teaches said control means comprises means for storing data in at least one of the respective areas in a ring buffering manner (col.3, lines 33-35).

Regarding claims 4, 18 and 32, Aoki teaches said temporary storage means comprises means for storing data in a ring buffering manner in which a ring start pointer and a ring end pointer can be set, and said control means comprises means for storing data in the ring buffering manner in at least one of the respective areas with setting the ring start pointer and the ring end pointer (it is taught as the buffer address indicates a leading address of a segment in a buffer and one segment shall be composed of eight blocks and one block has 512 bytes).

Regarding claims 9, 23 and 37, Aoki teaches recording means for recording data in the recording area of said information recording medium and reproducing means for reproducing data recorded in the recording area of the information recording medium are provided (Fig.6 and Fig.7); and said control means divides the storage area of said temporary storage means into at least a recording data storage area storing data to record in the information recording medium (Fig.7) and a reproduced data storage area storing data reproduced from the information recording medium (Fig.6); storing the data to record in the information recording medium in said recording data storage area (Fig.7 it is taught as a writing command processing); and, when a reproduction request is received during recording by said recording means, said reproducing means is made to store data reproduced from the information recording medium in said reproduced data storage area (Fig.6, it is taught as a reading command processing).

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Regarding claims 10, 24 and 38, Aoki teaches said recording means records data sequentially in the recording area of the information recording medium (Fig.7).

Regarding claims 14, 28 and 42, Aoki teaches said control means comprises means for setting a size of said reproduced data storage area so that said size becomes smaller than the recording data storage area (col.5, lines 14-17).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-8, 19-22, 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoki et al., US 6,151,660, in view of Yamaoka et al., US 2004/0258400 A1.

Regarding claims 5, 19 and 33, Aoki teaches the claimed invention as shown above and also teaches recording means for recording data in the recording area of the information recording medium (Fig.2, it is taught as the segmented cache area); said control means divides the storage area of the temporary storage means into at least a recording data storage area storing data to record in said information recording medium (Fig.2 and col.3, lines 65 to col.4, lines 14); data to record in the information recording medium is stored in said recording data storage area (Fig.2).

Aoki does not teach verifying means for carrying out verification processing of reproduced data from the recording area after being recorded by said recording means and detecting a defect are provided; a verification storage area storing data reproduced by said verifying means and the recorded data reproduced by the verifying means is stored in said verification storage area.

However, Yamaoka teaches verifying means for carrying out verification processing of reproduced data from the recording area after being recorded by said recording means and detecting a defect are provided (section 0082); a verification storage area storing data reproduced by said verifying means (section 0082, it is taught as a specified area) and the recorded data reproduced by the verifying means is stored in said verification storage area (section 0082).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Yamaoka in the information recording system of Aoki such as utilize the teaching of verifying means for carrying out verification processing of reproduced data from the recording area after being recorded by said recording means and detecting a defect are provided; a verification storage area storing data reproduced by said verifying means and the recorded data reproduced by the verifying means is stored in said verification storage area because it provides an optical disc defect management method, and optical disc recording apparatus and an optical disc reproduction apparatus capable of reproducing main information and sub information in a stable manner even when not only a defective area where the main information can not be normally recorded is found, but also a

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defective area where the sub information superimposed on such main information can not be normally recorded is found (section 0011 of Yamaoka).

Accordingly, one of ordinary skill in the art would have recognized this and concluded that they are from the same field of endeavor. This would have motivated one of ordinary skill in the art to implement the above combination for the advantages set forth above.

Regarding claims 6-7, 20-21 and 34-35, Aoki and Yamaoka teaches the claimed invention as shown above, Yamaoka further teaches said control means comprises means for holding the data stored in the recording data storage area until verification processing by said verifying means is completed (section 0095-0096). Aoki also teaches, Aoki teaches said control means comprises means for holding at least data of the data stored in the recording data storage area from among the data stored in said recording data storage area, and said at least data to hold is one for which verification processing by said verifying means is not completed (section 0095-0096). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Yamaoka in the information recording system of Aoki for the advantages stated above of claims 5, 19 and 33.

Regarding claims 8, 22 and 36, Aoki and Yamaoka teaches the claimed invention as shown above, Yamaoka further teaches said control means comprises means for setting a size of said verification storage area so that said size becomes

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smaller than the recording data storage area (section 0088). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Yamaoka in the information recording system of Aoki for the advantages stated above of claims 5, 19, 33.

Allowable Subject Matter

Claims 11-13, 25-27, 39-41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

When responding to the office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections. See 37 C.F.R. 1.111 (c).

. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jasmine Song whose telephone number is 571-272-4213. The examiner can normally be reached on 7:30-5:30 (first Friday off).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung Sough can be reached on 571-272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jasmine Song/

Examiner, Art Unit 2188